



## RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/828,935A  
Source: EFS/1FV40  
Date Processed by STIC: 11-22-04

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

~~TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE~~ CHECKER  
VERSION 4.2 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND  
TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box-1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 06/05/04):  
U.S. Patent and Trademark Office, 220 20<sup>th</sup> Street S., Customer Window, Mail Stop Sequence, Crystal Plaza Two, Lobby, Room 1B03, Arlington, VA 22202

## Raw Sequence Listing Error Summary

ERROR DETECTED	SUGGESTED CORRECTION	SERIAL NUMBER: <u>10/828,935/1A</u>
<b>ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE</b>		
1 <input type="checkbox"/> Wrapped Nucleics Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."	
2 <input type="checkbox"/> Invalid Line Length	The rules require that a line not exceed 72 characters in length. This includes white spaces.	
3 <input type="checkbox"/> Misaligned Amino Numbering	The numbering under each 5 <sup>th</sup> amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.	
4 <input type="checkbox"/> Non-ASCII	The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.	
5 <input type="checkbox"/> Variable Length	Sequence(s) contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.	
6 <input type="checkbox"/> PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s). Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.	
7 <input type="checkbox"/> Skipped Sequences (OLD RULES)	Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION: SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped  Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.	
8 <input type="checkbox"/> Skipped Sequences (NEW RULES)	Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence. <210> sequence id number <400> sequence id number 000	
9 <input type="checkbox"/> Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.	
10 <input type="checkbox"/> Invalid <213> Response	Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence	
11 <input checked="" type="checkbox"/> Use of <220>	Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)	
12 <input type="checkbox"/> PatentIn 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.	
13 <input type="checkbox"/> Misuse of n/Xaa	"n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid	



Does Not Comply  
Corrected Diskette Needed

IFWO

## RAW SEQUENCE LISTING

DATE: 11/22/2004

PATENT APPLICATION: US/10/828,935A

TIME: 08:19:32

Input Set : N:\efs\10828935A\UTMB1024rev\_ST25.txt

Output Set: N:\CRF4\11222004\J828935A.raw

3 <110> APPLICANT: Board of Regents, The University of Texas System  
4 Gorenstein, David G.  
5 Luxon, Bruce A.  
6 Herzog, Norbert  
7 Tang, Xian B.  
9 <120> TITLE OF INVENTION: BEAD BOUND COMBINATORIAL OLIGONUCLEOSIDE PHOSPHOROTHIOATE

AND

10 PHOSPHORODITHIOATE APTAMER LIBRARIES  
12 <130> FILE REFERENCE: UTMB:1024  
14 <140> CURRENT APPLICATION NUMBER: US 10/828,935A  
15 <141> CURRENT FILING DATE: 2004-04-21  
17 <150> PRIOR APPLICATION NUMBER: US 10/272,509  
18 <151> PRIOR FILING DATE: 2002-10-16  
20 <150> PRIOR APPLICATION NUMBER: US 60/272,509  
21 <151> PRIOR FILING DATE: 2001-11-15

23 <160> NUMBER OF SEQ ID NOS: 70  
25 <170> SOFTWARE: PatentIn version 3.3

27 &lt;210&gt; SEQ ID NO: 1

28 &lt;211&gt; LENGTH: 15

29 &lt;212&gt; TYPE: DNA

30 &lt;213&gt; ORGANISM: Artificial Sequence

32 &lt;220&gt; FEATURE:

33 &lt;223&gt; OTHER INFORMATION: Synthetic oligonucleotide.

36 &lt;220&gt; FEATURE:

37 <221> NAME/KEY: ~~misc feature~~ *remove*38 <223> OTHER INFORMATION: ~~Description of Artificial Sequence: synthetic oligonucleotide~~

40 &lt;400&gt; SEQUENCE: 1

41 ggatccggtg gtctg

15

44 &lt;210&gt; SEQ ID NO: 2

45 &lt;211&gt; LENGTH: 15

46 &lt;212&gt; TYPE: DNA

47 &lt;213&gt; ORGANISM: Artificial Sequence

49 &lt;220&gt; FEATURE:

50 &lt;223&gt; OTHER INFORMATION: Synthetic oligonucleotide.

53 &lt;220&gt; FEATURE:

54 <221> NAME/KEY: ~~misc feature~~ *remove*55 <223> OTHER INFORMATION: ~~Description of Artificial Sequence: synthetic oligonucleotide~~

57 &lt;400&gt; SEQUENCE: 2

58 cctactcgcg aattc

15

61 &lt;210&gt; SEQ ID NO: 3

62 &lt;211&gt; LENGTH: 23

63 &lt;212&gt; TYPE: DNA

64 &lt;213&gt; ORGANISM: Artificial Sequence

66 &lt;220&gt; FEATURE:

— Please explain source of  
genetic material in feature <220>, <223>  
see item # 11 on ERRORS summary SHEET.

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Output Set: N:\CRF4\11222004\J828935A.raw

```

or 67 <223> OTHER INFORMATION: wherein at least one nucleotide is an achiral thiophosphate
68     dithiophosphate
71 <220> FEATURE:
72 <221> NAME/KEY: modified_base
73 <222> LOCATION: (1)..(23)
74 <223> OTHER INFORMATION: wherein at least one nucleotide is an achiral thiophosphate
or 75     dithiophosphate at positions 1, 3, 5, 7, 9, 11, 13, 15, 17, 19,
76     21, 23.
78 <400> SEQUENCE: 3
79 cagttgaggg gactttccca ggc                                     23
82 <210> SEQ ID NO: 4
83 <211> LENGTH: 23
84 <212> TYPE: DNA
85 <213> ORGANISM: Artificial Sequence
87 <220> FEATURE:
88 <223> OTHER INFORMATION: Synthetic oligonucleotide.
91 <220> FEATURE:
92 <221> NAME/KEY: modified_base
93 <222> LOCATION: (1)..(23)
94 <223> OTHER INFORMATION: wherein at least one nucleotide is an achiral thiophosphate
or 95     dithiophosphate at positions 1, 3, 5, 7, 9, 11, 13, 15, 17, 19,
96     21, 23.
98 <400> SEQUENCE: 4
99 cctgcacatc tcaggatgac ttt                                     23
102 <210> SEQ ID NO: 5
103 <211> LENGTH: 22
104 <212> TYPE: DNA
105 <213> ORGANISM: Artificial Sequence
107 <220> FEATURE:
108 <223> OTHER INFORMATION: Synthetic oligonucleotide.
111 <220> FEATURE:
112 <221> NAME/KEY: modified_base
113 <222> LOCATION: (1)..(22)
114 <223> OTHER INFORMATION: wherein at least one nucleotide is an achiral thiophosphate
or 115     dithiophosphate at positions 4, 8, 9, 16, 19.
117 <400> SEQUENCE: 5
118 atgtagccag ctagtctgtc ag                                     22
121 <210> SEQ ID NO: 6
122 <211> LENGTH: 22
123 <212> TYPE: DNA
124 <213> ORGANISM: Artificial Sequence
126 <220> FEATURE:
127 <223> OTHER INFORMATION: Synthetic oligonucleotide.
130 <220> FEATURE:
131 <221> NAME/KEY: modified_base
132 <222> LOCATION: (1)..(22)
133 <223> OTHER INFORMATION: wherein at least one nucleotide is an achiral thiophosphate
or 134     dithiophosphate at positions 5, 9, 10, 16, 19.

```

136 <400> SEQUENCE: 6

## RAW SEQUENCE LISTING

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Output Set: N:\CRF4\11222004\J828935A.raw

```

137 cgcccagtga aggtggaacc cc
140 <210> SEQ ID NO: 7
141 <211> LENGTH: 50
142 <212> TYPE: DNA
143 <213> ORGANISM: Artificial Sequence
145 <220> FEATURE:
146 <223> OTHER INFORMATION: Synthetic oligonucleotide.
149 <220> FEATURE:
150 <221> NAME/KEY: misc_feature remove
151 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
oligonucleotide
153 <400> SEQUENCE: 7
154 atgcctactc gcaattccc aggagattcc acggatccgg tgggtctgttc
157 <210> SEQ ID NO: 8
158 <211> LENGTH: 52
159 <212> TYPE: DNA
160 <213> ORGANISM: Artificial Sequence
162 <220> FEATURE:
163 <223> OTHER INFORMATION: Synthetic oligonucleotide.
166 <220> FEATURE:
167 <221> NAME/KEY: misc_feature remove
168 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
oligonucleotide
170 <400> SEQUENCE: 8
171 cctactcgcg aattcagttg aggggacttt cccaggcgga tccggtggtc tg
174 <210> SEQ ID NO: 9
175 <211> LENGTH: 18
176 <212> TYPE: DNA
177 <213> ORGANISM: Artificial Sequence
179 <220> FEATURE:
180 <223> OTHER INFORMATION: Synthetic oligonucleotide.
183 <220> FEATURE:
184 <221> NAME/KEY: misc_feature remove
185 <223> OTHER INFORMATION: Description of Artificial Sequence: consensus sequence.
187 <400> SEQUENCE: 9
188 atgcctactc gcaattc
191 <210> SEQ ID NO: 10
192 <211> LENGTH: 18
193 <212> TYPE: DNA
194 <213> ORGANISM: Artificial Sequence
196 <220> FEATURE:
197 <223> OTHER INFORMATION: Synthetic oligonucleotide.
200 <220> FEATURE:
201 <221> NAME/KEY: misc_feature remove
202 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
oligonucleotide
204 <400> SEQUENCE: 10
205 gaacagacca cggatcc
208 <210> SEQ ID NO: 11
209 <211> LENGTH: 22
210 <212> TYPE: DNA
211 <213> ORGANISM: Artificial Sequence

```

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Output Set: N:\CRF4\11222004\J828935A.raw

```

213 <220> FEATURE:
214 <223> OTHER INFORMATION: Synthetic oligonucleotide.
217 <220> FEATURE:
218 <221> NAME/KEY: misc_feature Remove
219 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
oligonucleotide
221 <400> SEQUENCE: 11
222 ctgtgagtcg actgatgacg gt 22
225 <210> SEQ ID NO: 12
226 <211> LENGTH: 22
227 <212> TYPE: DNA
228 <213> ORGANISM: Artificial Sequence
230 <220> FEATURE:
231 <223> OTHER INFORMATION: Synthetic oligonucleotide.
234 <220> FEATURE:
235 <221> NAME/KEY: misc_feature Remove
236 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
oligonucleotide
238 <400> SEQUENCE: 12
239 agttgagtcg aaggacccat tt 22
242 <210> SEQ ID NO: 13
243 <211> LENGTH: 22
244 <212> TYPE: DNA
245 <213> ORGANISM: Artificial Sequence
247 <220> FEATURE:
248 <223> OTHER INFORMATION: Synthetic oligonucleotide.
251 <220> FEATURE:
252 <221> NAME/KEY: misc_feature Remove
253 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
oligonucleotide
255 <400> SEQUENCE: 13
256 cgtcaagtct cagttcccat tt 22
259 <210> SEQ ID NO: 14
260 <211> LENGTH: 22
261 <212> TYPE: DNA
262 <213> ORGANISM: Artificial Sequence
264 <220> FEATURE:
265 <223> OTHER INFORMATION: Synthetic oligonucleotide.
268 <220> FEATURE:
269 <221> NAME/KEY: misc_feature Remove
270 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
oligonucleotide
272 <400> SEQUENCE: 14
273 agtcaagtcg aagttccacg gt 22
276 <210> SEQ ID NO: 15
277 <211> LENGTH: 22
278 <212> TYPE: DNA
279 <213> ORGANISM: Artificial Sequence
281 <220> FEATURE:
282 <223> OTHER INFORMATION: Synthetic oligonucleotide.
285 <220> FEATURE:
286 <221> NAME/KEY: modified_base
287 <222> LOCATION: (1)..(22)

```

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TIME: 08:19:32

Input Set : N:\efs\10828935A\UTMB1024rev\_ST25.txt

Output Set: N:\CRF4\11222004\J828935A.raw

288 <223> OTHER INFORMATION: wherein at least one nucleotide is an achiral thiophosphate  
or  
289 dithiophosphate at positions 2, 8, 14, 16, 22.  
291 <400> SEQUENCE: 15  
292 ctgtgagtcg actgatgacg gt 22  
295 <210> SEQ ID NO: 16  
296 <211> LENGTH: 22  
297 <212> TYPE: DNA  
298 <213> ORGANISM: Artificial Sequence  
300 <220> FEATURE:  
301 <223> OTHER INFORMATION: Synthetic oligonucleotide.  
304 <220> FEATURE:  
305 <221> NAME/KEY: modified\_base  
306 <222> LOCATION: (1)..(22)  
307 <223> OTHER INFORMATION: wherein at least one nucleotide is an achiral thiophosphate  
or  
308 dithiophosphate at positions 8, 12, 14, 20, 22.  
310 <400> SEQUENCE: 16  
311 agttgagtcg aaggacccat tt 22  
314 <210> SEQ ID NO: 17  
315 <211> LENGTH: 22  
316 <212> TYPE: DNA  
317 <213> ORGANISM: Artificial  
319 <220> FEATURE:  
320 <223> OTHER INFORMATION: Synthetic oligonucleotide.  
323 <220> FEATURE:  
324 <221> NAME/KEY: modified\_base  
325 <222> LOCATION: (1)..(22)  
326 <223> OTHER INFORMATION: wherein at least one nucleotide is an achiral thiophosphate  
or  
327 dithiophosphate at positions 4, 8, 10, 12, 20, 22.  
329 <400> SEQUENCE: 17  
330 cgtcaagtct cagttcccat tt 22  
333 <210> SEQ ID NO: 18  
334 <211> LENGTH: 22  
335 <212> TYPE: DNA  
336 <213> ORGANISM: Artificial Sequence  
338 <220> FEATURE:  
339 <223> OTHER INFORMATION: Synthetic oligonucleotide.  
342 <220> FEATURE:  
343 <221> NAME/KEY: modified base  
344 <222> LOCATION: (1)..(22)  
345 <223> OTHER INFORMATION: wherein at least one nucleotide is an achiral thiophosphate  
or  
346 dithiophosphate at positions 4, 8, 12, 18, 22.  
348 <400> SEQUENCE: 18  
349 agtcaagtcg aagttccacg gt 22  
352 <210> SEQ ID NO: 19  
353 <211> LENGTH: 22  
354 <212> TYPE: DNA  
355 <213> ORGANISM: Artificial Sequence  
357 <220> FEATURE:  
358 <223> OTHER INFORMATION: wherein at least one nucleotide is an achiral thiophosphate

remove - Artificial oligonucleotide - Keep -  
feature below in Sequence Listing  
Saying "Synthetic oligonucleotide"



RAW SEQUENCE LISTING ERROR SUMMARY      DATE: 11/22/2004  
PATENT APPLICATION: US/10/828,935A      TIME: 08:19:33

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Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,  
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:17 — this is OK

VERIFICATION SUMMARY

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TIME: 08:19:33

Input Set : N:\efs\10828935A\UTMB1024rev\_ST25.txt

Output Set: N:\CRF4\11222004\J828935A.raw